

DIAGNOSTICS AND THERAPY OF EPSTEIN-BARR VIRUS IN AUTOIMMUNE DISORDERS

Abstract of the Disclosure

Data consistent with autoimmune disease being caused by Epstein-Barr virus are shown. Based on this evidence, an effective vaccine would prevent the autoimmune disease in those vaccinated, modified or administered so that the vaccine is not itself capable of inducing autoimmune disease. In the case of anti-Sm, structures to be avoided in an Epstein-Barr virus-derived vaccine have been identified. Differences have been identified in the immune responses to Epstein-Barr infection between individuals who develop a specific autoimmune disease and those who do not. These differences are used to distinguish those who are at greater risk for developing specific autoimmune diseases from those who are a lesser risk. Assuming Epstein-Barr virus causes autoimmune disease and that Epstein-Barr virus remains latent in the patient for life, reactivation of the virus from the latent state is important in generating or maintaining the autoimmune response that culminates in autoimmune disease. Cells infected with latent virus may also encourage autoimmunity. Based on the understanding that reactivation or latency are important to produce or sustain autoimmunity, then therapies directed against Epstein-Barr virus will also be effective therapies for the autoimmune manifestations of disease for which Epstein-Barr virus is responsible.